

8th Quarterly Report (Public)

Date of Report: January 30, 2016

Contract Number: **DTPH5614H00004**

Prepared for: US DOT – PHMSA

Project Title: Improving Models to Consider Complex Loadings, Operations Considerations, and Interactive Threats

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Objective: Some pipeline failures suggest that interactions of resident conditions with changing operations or environments may increase the probability of failure, reduce the failure stress, change the mode of failure from a leak to a rupture, cause development of a condition not detectable by assessment methods in use, or cause the shift of a condition from stable to unstable. The objective of this project is to develop guidance for pipeline operators in the form of advanced interaction matrices, decision processes.

Results and Conclusions:

Tasks III.A.3 and II.C.1 have been finalized and two reports has been submitted.

Plans for Future Activity:

The proposed schedule for 1Q16 is as follows:

- Task II.C.2 - Develop applications for cyclic loading
- Task II.C.3 - Develop applications for monotonic loading
- Task II.C.4 - Develop applications for changing environments